

AEN

MEMORANDUM

INTERMOUNTAIN POWER SERVICE CORPORATION

TO: Doug Ingraham
FROM: Dennis K. Killian
DATE: July 12, 1991
SUBJECT: Authorization to Purchase Burner Design
Evaluation Services
FILE: ~~01-03-03~~, 14.9010
01.12.02

Please proceed the attached purchase requisition to proceed with the engineering design evaluation of Babcock and Wilcox's proposed burner upgrade. We recommend using RJM Corporation of Ridgefield, CT to conduct this evaluation. Total estimated cost of the third party evaluation is \$46,200.

The burner design evaluation will consist of the following:

1. Conduct Mechanical Design Evaluation \$27,000
 - a. Establish CAD model of burner
 - b. Conduct finite element analysisObjective: • Minimize thermal expansion related damage to the burners.
2. Conduct 2-dimensional axisymmetric air flow model \$9,000Objectives: • Establish proper swirl characteristics.
• Determine outer register, inner register and backplate position settings
3. Design Coal Flame Stabilizer \$7,200Objectives: • Determine flame stabilizer design requirements to incorporate into mechanical design evaluation, air flow model and NOx evaluation.
4. Conduct NOx emissions evaluation \$1,000Objectives: • Provide NOx combustion evaluation to ensure recommendations on modifications to the burners do not increase NOx emission levels.

ESTIMATED COSTS for burner design evaluations	\$44,200
plus travel for meetings requested by IPSC	<u>\$ 2,000</u>
TOTAL	\$46,000

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Please reference the attached purchase requisition and June 17, 1991, Report from RJM on their initial evaluation of IGS's burners. Also attached is RJM literature on modeling and testing services.

We would like to schedule this activity to begin as soon as possible. Please contact Jerry Hintze or Aaron Nissen if you have any questions concerning this matter.

WJ
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Attachments

- Purchase Requisition
- RJM's Report dated 6/17/91 on burner evaluation and recommendations
- RJM Company Profile and literature

IP7_003618